

REMARKS

Applicants thank the Examiner for entry of the amendments filed November 13, 2009 and the submission filed on February 19, 2010.

Status of Claims

Claims 1, 3–5, and 7–20 are pending, of which claims 1, 11, and 14 are independent.

Status of Previous Rejections

Applicants thank the Examiner for withdrawing the rejection of claims 1, 3–5 and 7–20 under 35 U.S.C. § 103(a) in view of the declaration filed February 19, 2010.

Claim Rejections – 35 U.S.C. § 103

1. Claims 11 and 14–19 over Sato

The Examiner rejects claims 11 and 14–19 under 35 U.S.C. § 103(a) as being obvious over Sato *et al.*, JP 2002-371333 (hereafter, “Sato”). Applicants respectfully traverse.

The Examiner’s *prima facie* case is based on overlap between the alloys of Sato and the alloy used in the present claims. However, the present claims all require, *inter alia*: (1) a yield strength $R_{0.2}$ of **less than** 170 MPa (claim 11) or **less than** 160 MPa (claims 14–19) after solution treatment, quenching and age-hardening for three weeks at room temperature; (2) a high temperature yield strength, at the beginning of a paint baking heat treatment after a temperature rise, of **at least** 160 MPa; and (3) specific processing steps. The Examiner must provide a rationale for why a conclusion of *prima facie* obviousness is “more probable than not” in view of all of the evidence in the case. M.P.E.P. § 2142; *see also* M.P.E.P. § 706.02(j). Thus, it is not enough to simply rely on the overlap in concentrations. Rather, the Examiner must provide a sufficient rationale for why that overlap would more likely than not render the claimed physical properties obvious. *Id.*; *see also* M.P.E.P. § 706.02(j). Applicant submits that, in light of the evidence presently before the Examiner, a *prima facie* case cannot be based on the overlap in ranges alone.

As pointed out on numerous occasions in this case, the claimed composition, yield strengths, and processing steps all were chosen for particular reasons. *See generally, inter alia*,

Declaration of Gilles Guiglionda. In particular, the yield strength $R_{0.2}$ must be less than 170 MPa at that point in the process so that the alloy can be sufficiently pliable be formed properly, while the high temperature yield strength must be at least 160 MPa so that deformities do not arise during the paint baking heat treatment. *Id.* at paragraphs 8 and 11–14. Applicant has previously shown that alloys straying outside of the claimed ranges do not possess those physical properties. The Examiner has not provided any rationale for why Sato would lead a person of ordinary skill in the art to those precise concentrations or seek to obtain those precise physical properties. Indeed, all of the low yield strength values disclosed by Sato were measured at only 1 week of natural ageing (see [0036] of the translation) and even so, the one value disclosed is higher than 220 MPa, which is well outside the allowable range of the present claims. As such, Applicant respectfully submits that the Examiner has not established a *prima facie* case of obviousness.

Moreover, at least two compounds fully included in Sato do not possess the properties required by the present claims. Alloys 6011 and 6016 disclosed in the present application are fully included in Sato. A comparison of the compositions is shown in the following table:

	Si	Fe	Cu	Mn	Mg	Zn	Cr	Others
Claims	0.7 - 1.3	< 0.5	0.8 - 1.1	0.4 - 1.0	0.6 - 1.2	< 0.7	< 0.25	Zr + Ti < 0.2
Sato	0.4 - 1.8	0.02 - 0.5	0.1 - 1.5	0.03 - 1.5	0.2 - 1.6	0.05 - 6.0	0.02 - 0.5	Ok
6111	0.63	0.11	0.69	0.17	0.78	No	0.07	
6016	1.00	< 0.3	0.13	0.12	0.30	No	0.03	

As can be seen at tables 2 and 3 of the present specification, alloy 6111 has a yield strength after three weeks of 179 MPa, which is higher than the upper yield strength limit allowed by claim at this point, but a high temperature yield strength of 159 MPa, which is lower than the minimum limit required by claim 1. Moreover, as can be seen at Fig. 2, alloys 6111 and 6016 performs worse than the presently claimed alloys at resisting plastic deformation upon electrophoresis. Thus, even if a *prima facie* case could be established in light of Sato, it is overcome by the unexpected superior qualities of the alloys utilized in the present claims.

In light of the foregoing, Applicant submits that claims 11 and 14–19 are patentable over Sato and respectfully requests that this basis for rejection be withdrawn.

2. Claims 1, 3–5, 7–10, 12, 13, and 20 over Sato in light of Izumi

The Examiner rejects claims 1, 3–5, 7–10, 12, 13, and 20 under 35 U.S.C. § 103(a) as being obvious over Sato in view of US 6,678,936 to Izumi *et al.* (hereafter, “Izumi”). Applicants respectfully traverse.

For the same reasons as set forth above, Sato does not teach render the alloy used in the present claims obvious. Izumi does not overcome the aforementioned deficiencies of Sato. As such, Applicant submits that claims 1, 3–5, 7–10, 12, 13, and 20 are patentable over Sato and respectfully requests that this basis for rejection be withdrawn.

Response to Amendment

Applicant thanks the Examiner for finding the declaration filed on February 19, 2010 to be sufficient to overcome the rejection of claims 1, 3–5, and 7–20.

Response to Arguments

The Examiner submits that she has addressed Applicant’s previous argument directed to Cu. Applicant respectfully submits that supplying an alloy that broadly overlaps the claimed Cu concentration does not address any connection between Cu concentration and the claimed physical properties of the alloys presently used. As such, Applicant respectfully submits that the Examiner has not addressed the previously-asserted arguments regarding Cu concentration.

Conclusion

In view of the remarks above, Applicants respectfully submit that this application is in condition for allowance and request favorable action thereon. The Examiner is invited to contact the undersigned if any additional information is required.

Applicants authorize the Commissioner to charge Deposit Account No. 50-4254, referencing Attorney Docket No. 2901683-000026 for fees due or any deficiencies of fees and to credit any overpayments.

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Respectfully submitted,

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